

VDOE Science Update

December 14, 2016

One area of concern recently voiced by science supervisors around the state is the apparent lack of reading skills in many secondary students. These skills are critical for student success in: 1) mastering important science concepts; 2) fully developing the investigative skill/practice of scientific communication; and 3) demonstrating achievement the end of course assessments. As many teachers move away from using textbooks in their classes, some students may fail to form or maintain the reading skills in the content area necessary for success. In order to read and interpret science reading passages, students need to develop and practice these skills in the classroom. The VDOE Language Arts Coordinator, Tracy Robertson, recommended the following strategies to build skills in reading for all content areas.

- Teach students what to look at with a page of science text.
- Have students annotate text and highlight unknown vocabulary.
- Keep reader-response journals that allow students to answer targeted questions.
- Teach academic vocabulary and consistently utilize it in class discussions.
- Ask students text-dependent questions.
- Strategies such as summarizing, partner reading, and close reading work in any content area.
- Require student to read science texts and complete tasks. The content would not necessarily be content that would be familiar to students.

Teachers should provide supports such as reading guides or targeted questions, scaffolding the content for struggling readers and eventually release student to do this task on their own.

News

Update: ESSA

The timeline for Virginia's submission of the accountability plan under ESSA has been extended and will be submitted in September. This change will allow for the alignment of the Virginia ESSA plan more closely with the accountability decisions that will be made by the Board of Education in early 2017.

The [U.S. Department of Education](#) recently [announced final regulations](#) to implement the accountability, data reporting, and state plan provisions of the Every Student Succeeds Act (ESSA). The regulations allow states the flexibility to develop a plan designed to ensure a high-quality, well-rounded education that sets every student in America up for success in college and career.

For more information on the Virginia State Plan development process and an overview of ESSA changes, please visit the [VDOE website](#).

Grants and Awards

Chesapeake Bay Trust K-12 Environmental Education Mini Grants

The Chesapeake Bay Trust is awarding up to \$5,000 in funding for organizations that hold meaningful outdoor learning experiences. The grant program is open and the application deadline is **January 13, 2017**.

Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST) – Nominations Open – Grades 7-12

The Presidential Awards for Excellence in Mathematics and Science Teaching is pleased to announce that the 2017 cycle for grades 7 – 12 has begun and the nomination process has been opened. Nominations close on April 1, 2017.

PAEMST are the nation's highest honors for teachers of mathematics and science (including computer science). Awardees serve as models for their colleagues, inspiration to their communities, and leaders in the improvement of mathematics and science education. Since 1983, more than 4,700 teachers have been recognized for their contributions in the classroom and to their profession. If you know great teachers, nominate them to join this prestigious network of professionals. For more information on PAEMST or to nominate a teacher, visit the [PAEMST website](#).

Teacher Opportunities

The Teacher Enrichment Program (TEP)

The Teacher Enrichment Program (TEP) is the Center of Excellence in Education's (CEE) program for middle and high school STEM teachers. TEP provides opportunities for rural and urban teachers to connect with experts from industry, academia, government, and STEM organizations to explore cutting edge research and make meaningful professional links with direct benefits for themselves and their students. TEP events are planned in California, Florida, Pennsylvania, South Carolina, Texas, and Virginia for this school year. We invite interested teachers to visit the program website at www.cee.org/teacher-enrichment-program to find out how to connect with scientists and engineers in your community through Bite of Science sessions and Teacher Roundtables and to explore a variety of online STEM resources. All online resources and events are cost-free for all participants.

Student Opportunities

BLAST 2017- Building Leaders for Advancing Science and Technology

Blast is a partnership between Virginia, Space Consortium, Old Dominion University, University of Virginia, Virginia Tech, and the Commonwealth of Virginia that provides current 8th and 9th grade Virginia students a summer leadership residential experience. Students who have a desire to explore science, technology, engineering, and mathematics are encouraged to apply. Blast offers a free, dynamic three days residential summer experience at the different partnering universities. For more information, please go to www.blast.spacegrant.org. The deadline for applications is **February 6, 2017**.

National Youth Science Camp

The National Youth Science Camp (NYSC) is an intense month-long camp for young scientists conducted during the summer after they graduate from high school. In a rustic setting in West Virginia, students from around the country are challenged academically in exciting lectures and hands-on studies on current science topics. The program also offers participants the opportunity to experience a wide variety of outdoor activities that have minimal impact on the environment and are challenging for the experienced but accessible to those who have never participated in outdoor excursions. The NYSC is an all-expenses-paid program. The National Youth Science Foundation will arrange round trip transportation from an airport near the delegate's home to Charleston, West Virginia. Information about the National Youth Science Camp and an application may be obtained at the [National Youth Science Camp](#) Web site. The application must be submitted through the NYSC Web site by March 1, 2017.


Research Science Institute

The Center for Excellence in Education and Massachusetts Institute of Technology co-sponsor the Research Science Institute that will be held on the MIT campus June 25-August 5, 2017. The application for this free institute is now available for current 11 grade students to apply. Students that are accepted into this institute are required to pay travel expenses to and from MIT. See application information at: <http://www.cee.org/apply-rsi>. **Application due January 12, 2017.**

USA Biology Olympiad Registration is Open!

The 2017 Registration is now open for teachers and their respective schools. To register, please visit the USABO website <https://www.usabo-trc.org/>. Students should check *Student Info* for study resources. Registration closes **January 16, 2017**. Contact Kathy Frame, USABO Director, at kframe@cee.org if you have any questions.

Highlighted Superintendent's Memos

- MEMO 290-16
[2017 National Youth Science Camp \(NYSC\)](#)
- MEMO 282-16
[Presidential Awards for Excellence in Mathematics and Science Teaching \(PAEMST\) Program](#)
- MEMO 284-16
[New Local Alternative Assessment Guidelines](#) 

Contact Us

As always, please contact one of VDOE Science Team if you have questions.

Jim Firebaugh (Jim.Firebaugh@doe.virginia.gov)

Tina Mazzacane (Tina.Mazzacane@doe.virginia.gov)

Anne Petersen (anne.petersen@doe.virginia.gov)